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Waste water treatment, providing good quality water - involves adding flocculant, removing obtd. aggregated flocs then purifying in bio-reactor contg. media-adsorbing microorganism

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Patent Family:

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JP 5345195	A	19931227	JP 92123383	A	19920515	199405 B

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Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 5345195	A	4	C02F-003/34	

Abstract (Basic): JP 5345195 A

To waste water contg. N in inorganic and organic forms, flocculant is added to form flocs from suspended solids, colloids and soluble substances. The waste water after removing the aggregated flocs is introduced to a bio-reaction tank with media-adsorbing microorganisms for purifying waste water by biologically treatment.

More specifically, waste water and flocculant are mixed in an aggregation reaction device, where suspended solids and colloids are aggregated to form flocs and a part of soluble substances are taken in the flocs. The aggregate flocs are removed in an aggregated flocs sepg. device, using gravity sepn, centrifugal sepn or sepn by a membrane. As the flocculant, $Al_2(SO_4)_3$, $FeCl_3$ or polymer flocculant is used. The waste water after removing the aggregated flocs in the aggregation reaction device is flowed in the bio-reactor tank, where media for holding microorganisms for purifying waste water, e.g. plastic filter material or polymer gel, are placed. By placing the media in the bio-reactor tank, a solid-liquid sepg. device for recovering the microorganism is not needed.

ADVANTAGE - Treated water of good quality is obtd. by waste water treatment facilities which are mot compact than conventional ones.

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Derwent Class: D15

International Patent Class (Main): C02F-003/34

International Patent Class (Additional): C02F-003/06